



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,053	04/06/2006	Asko Vetelainen	879.0062.U1 (US)	6575
29683	7590	09/14/2007		
HARRINGTON & SMITH, PC 4 RESEARCH DRIVE SHELTON, CT 06484-6212				
			EXAMINER	
			HUR, ECE	
			ART UNIT	PAPER NUMBER
			2109	
			MAIL DATE	DELIVERY MODE
			09/14/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

mn

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,053	<b>Applicant(s)</b> VETELAINEN ET AL.	
	<b>Examiner</b> ECE HUR	<b>Art Unit</b> 2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 6,10,16 and 25-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☒ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/06/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This action is responsive to application filed on April 6, 2006 and IDS filed on April 6, 2006, in which Claims 1-30 are presented for examination. This application is a new PCT National Stage application of PCT/FI04/00592 that was filed on October 7 2004. Applicant is claiming foreign priority for the application 20031563 filed on October 7, 2003 in Finland.

### *Status of Claims*

Claims 1-30 are pending in the case. Claims 1, 13, 19, 23 and 30 are independent Claims.

Claims 1-30 are rejected under U.S.C. 112, 2<sup>nd</sup> paragraph.

Claims 23-30 are rejected under U.S.C. 101.

Claims 1, 2, 4-30 are rejected under U.S.C. 102(e).

Claims 3, 8-11 are rejected under 35 U.S.C. 103(a).

### *Information Disclosure Statement Acknowledgement*

The information disclosure statements filed on October 6, 2006 is in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been placed in the application file, the information referred to therein has been considered as to the merits.

### *Priority Acknowledgement*

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Receipt is acknowledged of certified copy of application 20031563, filed on April 6, 2006, in Finland submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Abstract Objection***

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

### ***Specification Objection***

Specification is objected to because of the spelling errors such as: "characterised", "utilise", "realise", "personalised"... Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

Claims are objected to because of the spelling errors such as: "characterised", "utilise", "realise", "personalised". Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 6, 10, 16, 25, 26 and 27 are objected to because of the conditional statement "if", it renders the scope of the claim indefinite.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1-30, Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, Claims 1-30 recite the phrase "the", such as "the contents" or "the user interface". Examiner suggests to change the "the" to "a". There is insufficient antecedent basis for this limitation in the claims.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically directed towards Software per se.

Art Unit: 2109

Regarding Claims 23-30, Claims 23-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter and claiming "application program" and "computer program". Software is functional descriptive material that can be considered statutory only if it is both functional and clearly embodied on a computer readable medium and designed to support specific data manipulation function. When functional descriptive material is recorded on a computer-readable medium it will become structurally and functionally interrelated the medium and will be statutory in most cases since the use of technology permits the function of the descriptive material to be realized. See *In re Lowry*, 32 F.3D 1579, 32 USPQ2d 1031, 1035 (Fed. Cir 1994) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQd at 1759. A Software structure is functional if the specific arrangement of data enables a computer to accomplish useful result arising from the arrangement of the data in the software. However, only computer readable medium executed instruction by a processor could be statutory, it is not clearly defined as being embodied in a computer readable medium as executed instruction and is therefore not statutory. See *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims** 1, 2, 4-7 and 12-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Astala, US Patent 6,590,568.

Regarding Claim 1, Astala discloses the claimed aspect of a method for shifting the contents of a first shortcut key and a second shortcut key belonging to the user interface of an electronic device, characterized in that the contents of the first shortcut key and the second shortcut key is shifted between each other with the aid of a drag and drop method, wherein a method and apparatus for dragging and dropping items displayed on a touch screen and the item on the touch screen is touched with a pressure greater than a first predetermined pressure for a first predetermined period of time. The pressure on the item is then reduced, and the item is dragged with the reduced pressure to a second location at which the touch screen is touched with a pressure greater than a second predetermined pressure for a time duration greater than a second predetermined time period. (Astala, See Abstract, lines 1-8). Additionally, Astala discloses that the item on the touch screen is touched with a pressure greater than a predetermined pressure for a first predetermined period of time, and then the touch screen is touched at a second location with a pressure greater than the predetermined pressure for a second predetermined period of time, less than the first predetermined period of time. (Astala, See Abstract, lines 9-16).

Regarding Claim 2, most of the limitations have been met in the rejection of Claim 1. See the rejection of Claim 1. Astala discloses the claimed aspect of one of the following is used as the electronic device: a cellular network terminal, a PC, a portable computer or a palm computer in FIG. 3, FIG. 4 and FIG. 5, wherein a mobile terminal and MDA(Mobile Display Appliance) system are illustrated.

Regarding Claim 4, most of the limitations have been met in the rejection of Claim 3. See the rejection of Claim 3 for details. Astala discloses the claimed aspect of characterized in that the first shortcut key to be shifted is selected to become the shifted shortcut key by pressing the touch screen with the aid of an object at the position of the first shortcut key, wherein a touch screen technique is provided for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object is used and contacting or pressing a detection point on the touch screen, are detected. (Astala, Page 2, Paragraph 20, lines 1-5). More specifically, Astala discloses that the pressure and velocity could be of a finger or other object contacting the touch screen. (Astala, Page 2, Paragraph 5, lines 5-8).

Regarding Claim 5, most of the limitations have been met in the rejection of Claim 4. See the rejection of Claim 4 for details. Astala discloses the claimed aspect of characterized in that the contents of the first shortcut key is shifted to become the contents of the second shortcut key by moving the object used in the



Art Unit: 2109

selection on the touch screen from a position above the first shortcut key to a position over the second shortcut key, where the object is raised from the touch screen, whereby the raising of the object initiates the shifting of the contents of the first shortcut key to become the contents of the second shortcut key in FIGURE 6a-d, wherein specifically FIG. 6c illustrates the second touch input 736 being made over the image of directory 2 in window 730. At step 718, the x and y coordinates of the second touch input 736 are determined, and at step 720, the object of the second touch, that is, the selected item of the second touch, is determined to be directory 2. At step 722, the object of the first touch input, that is, file 1, is then moved to the object of the second touch input, that is, directory 2. The process is then ended at step 724. FIG. 6d illustrates that file 1 has been moved from directory 3. (Astala, Page 9, Paragraphs 55-60).

Regarding Claim 6, most of the limitations have been met in the rejection of Claim 4. See the rejection of Claim 4 for details. Astala discloses the claimed aspect of function attached to the first shortcut key is executed if the object used to select the shortcut key is raised from the touch screen above the first shortcut key, wherein in order to retrieve information or to request services from the MDA server 28 or the Internet 26, the user might utilize the input touch screen 70. The user can provide input using a virtual keyboard displayed on the display 70, using keyboard 72, or through the touch screen input on the touch screen 70 utilizing various processes and functions according to the embodiments of the invention. Even though the virtual keyboard may be used as the user retrieves information

Art Unit: 2109

from the Internet 26, such as a web page, the user can receive the information at the display 70 of the terminal 20 in a full screen format. Full screen format is available because the virtual keyboard disappears when the user types a Universal Resource Locator (URL) or follows a hyperlink while navigating the Internet 26. In order to return to the virtual keyboard, the user presses a button 80, and the virtual keyboard as well as the header and footer related to the services are presented again. Additionally, once the user presses the button 80, the web page, which was a full screen display prior to pressing the button 80, is reduced to a thumbnail view and positioned in the display 70, such as in the bottom left corner of the footer. Consequently, the user has a shortcut to quickly access the web page that was previously visited or to save that web page as a bookmark. (Astala, Page 7, Paragraphs 5-25).

Regarding Claim 7, most of the limitations have been met in the rejection of Claim 4. See the rejection of Claim 4 for details. Astala discloses the claimed aspect of raising of the object used to select the shortcut key from the touch screen somewhere else than above a shortcut key cancels the initiated shifting of the contents of the first shortcut key in FIGURE 6a, wherein at step 704 at step 704, a timer is started upon the detection of the object pressing the touch screen 70, and at step 706, the x and y coordinates of the touch input 732 are read. That is, the location of the object at its contact point with the touch screen 70 is determined. (Astala, Page 9, Paragraph 20). As next at step 714, a determination

Art Unit: 2109

that a drag operation is occurring may be discerned by detecting changes in the x and y coordinates over a predetermined period of time while allowing for discontinuities in the pressure of the object on the touch screen caused by momentary lifting of the object from the face of the touch screen 70 during the drag operation. (Astala, Page 9, Paragraph 40, lines 4-9). Applicant should duly note that the system needs to determine the coordinates of the shortcut keys. Furthermore, raising an object or unclicking the mouse during a drag operation cancels the shifting of the content of any shortcut key. (Microsoft Office Products).

Regarding Claim 12, most of the limitations have been met in the rejection of Claim 5. See the rejection of Claim 5 for details. Astala discloses the claimed aspect of the contents of a shortcut key means a function defined for a shortcut key in FIG. 6b-d, wherein a FILE 1 is dragged to DIR2. Additionally, Hawkins discloses the claimed aspect of the contents of a shortcut key means a function defined for a shortcut key in Figure 5, wherein shortcut keys with a function are illustrated.

Regarding Claim 13, Astala discloses the claimed aspect of a touch screen having a shortcut menu comprising at least two separate shortcut keys, a first and a second shortcut key with interchangeable contents, characterized in that the shift of the contents of the first shortcut key and the second shortcut key between each other is arranged to be made with the drag and drop method,

wherein a method and apparatus for dragging and dropping items displayed on a touch screen and the item on the touch screen is touched with a pressure greater than a first predetermined pressure for a first predetermined period of time. The pressure on the item is then reduced, and the item is dragged with the reduced pressure to a second location at which the touch screen is touched with a pressure greater than a second predetermined pressure for a time duration greater than a second predetermined time period. (Astala, See Abstract, lines 1-8). Additionally, Astala discloses that the item on the touch screen is touched with a pressure greater than a predetermined pressure for a first predetermined period of time, and then the touch screen is touched at a second location with a pressure greater than the predetermined pressure for a second predetermined period of time, less than the first predetermined period of time. (Astala, See Abstract, lines 8-16).

Regarding Claim 14, most of the limitations have been met in the rejection of Claim 13. See the rejection of Claim 13 for details. Astala discloses the claimed aspect of the first shortcut key is selected to become shifted by pressing the touch screen with an object at the first shortcut key, wherein a touch screen technique is provided for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object is used and contacting or pressing a detection point on the touch screen, are detected. (Astala, Page 2, Paragraph 20, lines 1-5). More specifically, Astala discloses that

Art Unit: 2109

the pressure and velocity could be of a finger or other object contacting the touch screen. (Astala, Page 2, Paragraph 5, lines 5-8).

Regarding Claim 15, most of the limitations have been met in the rejection of Claim 14. See the rejection of Claim 14 for details. Astala discloses the claimed aspect of the contents of the first shortcut key is arranged to be changed to become the contents of the second shortcut key by moving the object used for selecting on the touch screen from a position above the first shortcut key to a position above the second shortcut key, where raising of the object from the touch screen is arranged to initiate the shifting of the contents of the first shortcut key to become the contents of the second shortcut key in FIGURE 6a-d, wherein specifically FIG. 6c illustrates the second touch input 736 being made over the image of directory 2 in window 730. At step 718, the x and y coordinates of the second touch input 736 are determined, and at step 720, the object of the second touch, that is, the selected item of the second touch, is determined to be directory 2. At step 722, the object of the first touch input, that is, file 1, is then moved to the object of the second touch input, that is, directory 2. The process is then ended at step 724. FIG. 6d illustrates that file 1 has been moved from directory 3. (Astala, Page 9, Paragraphs 55-60).

Regarding Claim 16, most of the limitations have been met in the rejection of Claim 14. See the rejection of Claim 14 for details. Astala discloses the claimed aspect of the function attached to the first shortcut key is arranged to be

Art Unit: 2109

executed if the object used to select the shortcut key is raised from the touch screen above the first shortcut key, wherein in order to retrieve information or to request services from the MDA server 28 or the Internet 26, the user might utilize the input touch screen 70. The user can provide input using a virtual keyboard displayed on the display 70, using keyboard 72, or through the touch screen input on the touch screen 70 utilizing various processes and functions according to the embodiments of the invention. Even though the virtual keyboard may be used as the user retrieves information from the Internet 26, such as a web page, the user can receive the information at the display 70 of the terminal 20 in a full screen format. Full screen format is available because the virtual keyboard disappears when the user types a Universal Resource Locator (URL) or follows a hyperlink while navigating the Internet 26. In order to return to the virtual keyboard, the user presses a button 80, and the virtual keyboard as well as the header and footer related to the services are presented again. Additionally, once the user presses the button 80, the web page, which was a full screen display prior to pressing the button 80, is reduced to a thumbnail view and positioned in the display 70, such as in the bottom left corner of the footer. Consequently, the user has a shortcut to quickly access the web page that was previously visited or to save that web page as a bookmark. (Astala, Page 7, Paragraphs 5-25).

Regarding Claim 17, most of the limitations have been met in the rejection of Claim 14. See the rejection of Claim 14 for details. Astala discloses the claimed aspect of the raising of the object used to select the shortcut key from

Art Unit: 2109

the touch screen somewhere else than above a shortcut key is arranged to cancel the initiated shifting of the contents of the first shortcut key in FIGURE 6a, wherein at step 704 at step 704, a timer is started upon the detection of the object pressing the touch screen 70, and at step 706, the x and y coordinates of the touch input 732 are read. That is, the location of the object at its contact point with the touch screen 70 is determined. (Astala, Page 9, Paragraph 20). As next at step 714, a determination that a drag operation is occurring may be discerned by detecting changes in the x and y coordinates over a predetermined period of time while allowing for discontinuities in the pressure of the object on the touch screen caused by momentary lifting of the object from the face of the touch screen 70 during the drag operation. (Astala, Page 9, Paragraph 40, lines 4-9). Applicant should duly note that the system needs to determine the coordinates of the shortcut keys. Furthermore raising an object or unclicking the mouse during a drag operation cancels the shifting of the content of any shortcut key. (Microsoft Office Products).

Regarding Claim 18, most of the limitations have been met in the rejection of Claim 15. See the rejection of Claim 15 for details. Astala discloses the claimed aspect of the contents of a shortcut key is a function defined to be executed by the shortcut key in FIG. 6b-d, wherein a FILE 1 is dragged to DIR2. Additionally, Hawkins discloses the claimed aspect of the contents of a shortcut key means a function defined for a shortcut key in Figure 5, wherein shortcut keys with a function are illustrated.

Regarding Claim 19, Astala discloses the claimed aspect of an electronic device with a user interface comprising at least two separate shortcut keys, a first and a second shortcut key with interchangeable contents, characterized in that a shift of the contents of the first shortcut key and the second shortcut key between each other is arranged to be made with the drag and drop method in FIG. 6b-6d, wherein a display and shortcut keys are illustrated. The display is part of FIG. 3, wherein is a block diagram of an example of a mobile terminal that may operate with the MDA system of FIG. 1. Furthermore, Astala discloses the claimed aspect of device with a user interface comprising at least two separate shortcut keys, a first and a second shortcut key with interchangeable contents, characterized in that a shift of the contents of the first shortcut key and the second shortcut key between each other is arranged to be made with the drag and drop method, wherein a method and apparatus for dragging and dropping items displayed on a touch screen and the item on the touch screen is touched with a pressure greater than a first predetermined pressure for a first predetermined period of time. The pressure on the item is then reduced, and the item is dragged with the reduced pressure to a second location at which the touch screen is touched with a pressure greater than a second predetermined pressure for a time duration greater than a second predetermined time period. Additionally, Astala discloses that the item on the touch screen is touched with a pressure greater than a predetermined pressure for a first predetermined period of time, and then the touch screen is touched at a second location with a pressure greater than the



Art Unit: 2109

predetermined pressure for a second predetermined period of time, less than the first predetermined period of time. (Astala, See Abstract).

Regarding Claim 20, most of the limitations have been met in the rejection of Claim 19. See the rejection of Claim 19 for details. Astala discloses the claimed aspect of the electronic device comprises a touch screen, on which there is formed a shortcut menu with at least two shortcut keys with interchangeable contents, wherein a method and apparatus for dragging and dropping items displayed on a touch screen and the item on the touch screen is touched with a pressure greater than a first predetermined pressure for a first predetermined period of time. The pressure on the item is then reduced, and the item is dragged with the reduced pressure to a second location at which the touch screen is touched with a pressure greater than a second predetermined pressure for a time duration greater than a second predetermined time period. Additionally, Astala discloses that the item on the touch screen is touched with a pressure greater than a predetermined pressure for a first predetermined period of time, and then the touch screen is touched at a second location with a pressure greater than the predetermined pressure for a second predetermined period of time, less than the first predetermined period of time. (Astala, See Abstract).

Regarding Claim 21, most of the limitations have been met in the rejection of Claim 20. See the rejection of Claim 20 for details. Astala discloses the claimed aspect of the contents of a shortcut key is a function defined to be

Art Unit: 2109

executed by a shortcut key in FIG. 6b-d, wherein a FILE 1 is dragged to DIR2. Additionally, Hawkins discloses the claimed aspect of the contents of a shortcut key means a function defined for a shortcut key in Figure 5, wherein shortcut keys with a function are illustrated.

Regarding Claim 22, most of the limitations have been met in the rejection of Claim 21. See the rejection of Claim 21 for details. Astala discloses the claimed aspect of characterized in that it is one of following: a cellular network terminal, a portable computer or a palm computer in FIG. 3, FIG. 4 and FIG. 5, wherein a mobile terminal and MDA (Mobile Display Appliance) system are illustrated.

Regarding Claim 23, Astala discloses the claimed aspect of an application program in an electronic device for shifting the contents of a first shortcut key and a second shortcut key belonging to the device's user interface, characterized in that the application program comprises software means for executing the shift of the contents of the shortcut keys between each other utilizing the drag and drop method in FIG. 3, wherein FIG. 3 is a block diagram of a mobile terminal 20a that operates within the MDA system of FIG. 1. Terminals 20b and 20c may be similar in design. Terminal 20a may include a touch screen 70 for providing a display, a keyboard 72, a browser 74, a driver 76, and hardware 78. The hardware 78 may include a memory for storing data, such as the Internet address of the global address server 36, and the software for operating the terminal 20, such as the

Art Unit: 2109

browser 74. (Astala, Page 6, Paragraph 25, lines 1-8). Furthermore, Astala discloses the claimed aspect of a method for shifting the contents of a first shortcut key and a second shortcut key belonging to the user interface of an electronic device, characterized in that the contents of the first shortcut key and the second shortcut key is shifted between each other with the aid of a drag and drop method, wherein a method and apparatus for dragging and dropping items displayed on a touch screen and the item on the touch screen is touched with a pressure greater than a first predetermined pressure for a first predetermined period of time. The pressure on the item is then reduced, and the item is dragged with the reduced pressure to a second location at which the touch screen is touched with a pressure greater than a second predetermined pressure for a time duration greater than a second predetermined time period. Additionally, Astala discloses that the item on the touch screen is touched with a pressure greater than a predetermined pressure for a first predetermined period of time, and then the touch screen is touched at a second location with a pressure greater than the predetermined pressure for a second predetermined period of time, less than the first predetermined period of time. (Astala, See Abstract).

Regarding Claim 24, most of the limitations have been met in the rejection of Claim 23. See the rejection of Claim 23 for details. Astala discloses the claimed aspect of software means for changing the shortcut keys in a shortcut menu created on a touch screen, which belongs to a portable device in FIG. 3,

Art Unit: 2109

FIG. 4 and FIG. 5, wherein a mobile terminal and MDA (Mobile Display Appliance) system are illustrated.

Regarding Claim 25, most of the limitations have been met in the rejection of Claim 24. See the rejection of Claim 24 for details. Astala discloses the claimed aspect of a step for selecting a first shortcut key, whereby the selection is made by pressing the touch screen with an object, wherein a touch screen technique is provided for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object is used and contacting or pressing a detection point on the touch screen, are detected. (Astala, Page 2, Paragraph 20, lines 1-5). More specifically, Astala discloses that the pressure and velocity could be of a finger or other object contacting the touch screen. (Astala, Page 2, Paragraph 5, lines 5-8).

Astala discloses the claimed aspect of a step for detecting whether the object is raised from the touch screen at the position of the selected first shortcut key, and if the object is not raised at the position of the selected first shortcut key it further comprises a step for detecting the movement of the object on the surface of the touch screen away from the position above the first shortcut key, wherein in order to retrieve information or to request services from the MDA server 28 or the Internet 26, the user might utilize the input touch screen 70. The user can provide input using a virtual keyboard displayed on the display 70, using keyboard 72, or through the touch screen input on the touch screen 70 utilizing various processes and functions according to the embodiments of the invention.

Even though the virtual keyboard may be used as the user retrieves information from the Internet 26, such as a web page, the user can receive the information at the display 70 of the terminal 20 in a full screen format. Full screen format is available because the virtual keyboard disappears when the user types a Universal Resource Locator (URL) or follows a hyperlink while navigating the Internet 26. In order to return to the virtual keyboard, the user presses a button 80, and the virtual keyboard as well as the header and footer related to the services are presented again. Additionally, once the user presses the button 80, the web page, which was a full screen display prior to pressing the button 80, is reduced to a thumbnail view and positioned in the display 70, such as in the bottom left corner of the footer. Consequently, the user has a shortcut to quickly access the web page that was previously visited or to save that web page as a bookmark. (Astala, Page 7, Paragraphs 5-25).

Astala discloses the claimed aspect of a step for detecting whether the object is raised from the surface of the touch screen at the position of a second shortcut key in FIGURE 6a, wherein at step 704 At step 704, a timer is started upon the detection of the object pressing the touch screen 70, and at step 706, the x and y coordinates of the touch input 732 are read. That is, the location of the object at its contact point with the touch screen 70 is determined. (Astala, Page 9, Paragraph 20). As next at step 714, a determination that a drag operation is occurring may be discerned by detecting changes in the x and y coordinates over a predetermined period of time while allowing for discontinuities in the pressure of the object on the touch screen caused by momentary lifting of

Art Unit: 2109

the object from the face of the touch screen 70 during the drag operation.

(Astala, Page 9, Paragraph 40, lines 4-9).

Astala discloses the claimed aspect of a step where the contents of the first shortcut key and the second shortcut key are interchanged, in FIGURE 6a-d, wherein specifically FIG. 6c illustrates the second touch input 736 being made over the image of directory 2 in window 730. At step 718, the x and y coordinates of the second touch input 736 are determined, and at step 720, the object of the second touch, that is, the selected item of the second touch, is determined to be directory 2. At step 722, the object of the first touch input, that is, file 1, is then moved to the object of the second touch input, that is, directory 2. The process is then ended at step 724. FIG. 6d illustrates that file 1 has been moved from directory 3. (Astala, Page 9, Paragraphs 55-60).

Regarding Claim 26, most of the limitations have been met in the rejection of Claim 25. See the rejection of Claim 25 for details. Astala discloses the claimed aspect of the function connected to the first shortcut key is executed, if the object is raised from the touch screen at the position of the first shortcut key, wherein in order to retrieve information or to request services from the MDA server 28 or the Internet 26, the user might utilize the input touch screen 70. The user can provide input using a virtual keyboard displayed on the display 70, using keyboard 72, or through the touch screen input on the touch screen 70 utilizing various processes and functions according to the embodiments of the invention. Even though the virtual keyboard may be used as the user retrieves information

Art Unit: 2109

from the Internet 26, such as a web page, the user can receive the information at the display 70 of the terminal 20 in a full screen format. Full screen format is available because the virtual keyboard disappears when the user types a Universal Resource Locator (URL) or follows a hyperlink while navigating the Internet 26. In order to return to the virtual keyboard, the user presses a button 80, and the virtual keyboard as well as the header and footer related to the services are presented again. Additionally, once the user presses the button 80, the web page, which was a full screen display prior to pressing the button 80, is reduced to a thumbnail view and positioned in the display 70, such as in the bottom left corner of the footer. Consequently, the user has a shortcut to quickly access the web page that was previously visited or to save that web page as a bookmark. (Astala, Page 7, Paragraphs 5-25).

Regarding Claim 27, most of the limitations have been met in the rejection of Claim 25. See the rejection of Claim 25 for details. Astala discloses the claimed aspect of shifting of the contents of the first shortcut key is cancelled, if the object is raised from the touch screen in an area, which is not defined to belong to a shortcut key in FIGURE 6a, wherein at step 704 at step 704, a timer is started upon the detection of the object pressing the touch screen 70, and at step 706, the x and y coordinates of the touch input 732 are read. That is, the location of the object at its contact point with the touch screen 70 is determined. (Astala, Page 9, Paragraph 20). As next at step 714, a determination that a drag operation is occurring may be discerned by detecting changes in the x and y

Art Unit: 2109

coordinates over a predetermined period of time while allowing for discontinuities in the pressure of the object on the touch screen caused by momentary lifting of the object from the face of the touch screen 70 during the drag operation.

(Astala, Page 9, Paragraph 40, lines 4-9). Applicant should duly note that the system needs to determine the coordinates of the shortcut keys. Furthermore raising an object or unclicking the mouse during a drag operation cancels the shifting of the content of any shortcut key. (Microsoft Office Products).

Regarding Claim 28, most of the limitations have been met in the rejection of Claim 27. See the rejection of Claim 27 for details. Astala discloses the claimed aspect of the contents of a shortcut key is a function defined to be executed by the shortcut key in FIG. 6b-d, wherein a FILE 1 is dragged to DIR2. Additionally, Hawkins discloses the claimed aspect of the contents of a shortcut key means a function defined for a shortcut key in Figure 5, wherein shortcut keys with a function are illustrated.

Regarding Claim 29, most of the limitations have been met in the rejection of Claim 28. See the rejection of Claim 28 for details. Astala discloses the claimed aspect of one of the following devices: a cellular network terminal, a portable computer or a palm computer in FIG. 3, FIG. 4 and FIG. 5, wherein a mobile terminal and MDA (Mobile Display Appliance) system are illustrated.

Regarding Claim 30, Astala discloses the claimed aspect of data storage means in FIG. 3, a block diagram of a mobile terminal 20a that operates within



Art Unit: 2109

the MDA system of FIG. 1. Terminals 20b and 20c may be similar in design.

Terminal 20a may include a touch screen 70 for providing a display, a keyboard 72, a browser 74, a driver 76, and hardware 78. The hardware 78 may include a memory for storing data, such as the Internet address of the global address server 36, and the software for operating the terminal 20, such as the browser 74. Hardware 78 may include a touch screen controller for controlling the input process for touch screen 70. As the terminal 20a is turned on, the driver 76 retrieves data relating to the Internet address of the global address server 36. Once the terminal 20a is turned on, it is coupled to the access point 22 and the ISP 24. Thus, the terminal 20a is able to obtain its own Internet address. Using the Internet address of its global address server, the terminal 20a is coupled to the global address server 36 and sends a request in order to obtain the Internet address of its MDA server. Once the terminal 20a has the Internet address of its MDA server, it is then coupled to the MDA server 28. The MDA server 28 authenticates, using the unique identity of the hardware 78 of the terminal 20a, that the terminal 20a has family level access privileges. Accordingly, the terminal 20a is authenticated and logged onto the MDA server 28 to begin a family session at a family level. Thus, the user can now access services or retrieve information from the MDA server 28 or access the Internet 26. In order for the user to initiate a private session and retrieve private information, the user must use the terminal 20a and provide further authentication to the MDA server 28 to gain access at the private level. It will be apparent to those skilled in the art that at either the family level or the private level, the user is able to retrieve

Art Unit: 2109

information related to the family of users as well as browse the Internet 26 to retrieve information.

Astala discloses the claimed aspect of shift the contents of a first shortcut key and a second shortcut key on the display of an electronic device between each other by utilizing the drag and drop method, wherein a method and apparatus for dragging and dropping items displayed on a touch screen and the item on the touch screen is touched with a pressure greater than a first predetermined pressure for a first predetermined period of time. The pressure on the item is then reduced, and the item is dragged with the reduced pressure to a second location at which the touch screen is touched with a pressure greater than a second predetermined pressure for a time duration greater than a second predetermined time period. Additionally, Astala discloses that the item on the touch screen is touched with a pressure greater than a predetermined pressure for a first predetermined period of time, and then the touch screen is touched at a second location with a pressure greater than the predetermined pressure for a second predetermined period of time, less than the first predetermined period of time. (Astala, See Abstract).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

Art Unit: 2109

patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Astala, US 6,590,568 in view of Hawkins, US 6,781,575.**

Regarding Claim 3, most of the limitations have been met in the rejection of Claim 2. See the rejection of Claim 2 for details. Astala does not teach specifically the claimed aspect of a touch screen used as the display unit of the electronic device, whereby a shortcut menu is created on the touch screen. However, Hawkins discloses the claimed aspect of a touch screen used as the display unit of the electronic device, whereby a shortcut menu is created on the touch screen in FIGURE 5 and FIGURE 6, wherein new, edit, delete and done options on touch screen are illustrated.

It would be obvious to one ordinary skill in the art at the time of the invention to combine Astala's touch screen drop and drop method with Hawkins touch screen organizing elements, because as the size of these communication devices decreases and as the number of functions increases, it has become increasingly important for a user to be able to enter commands and information into the communication device in an efficient manner and with a reduction in size of the device, a keypad input device must also be reduced in size, thereby

decreasing the efficiency with which information can be inputted by reducing the number and size of the keys.(Astala, Page 1, Paragraphs 30-35).

**Claims 8-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Astala, US 6,590,568 in view of Leavitt et al., US 20020085037.

Regarding Claim 8, most of the limitations have been met in the rejection of Claim 2. See the rejection of Claim 2 for details. Astala does not teach the claimed aspect of first shortcut key is selected to become shifted by selecting it among the shortcut keys on the display of the electronic device with the button of a mouse belonging to the user interface of the electronic device. However, Leavitt discloses the claimed aspect of first shortcut key is selected to become shifted by selecting it among the shortcut keys on the display of the electronic device with the button of a mouse belonging to the user interface of the electronic device, wherein a cursor-based computing environment with a display and a user definable interface (UDI) is displayed upon activation by a user. UDI has a plurality of buttons and is displayed in a relative position about a cursor position to reduce cursor commute. Leavitt discloses that the user to select a visual appearance and shape of the UDI, and the number of buttons. More specifically, this technique allows users to assign a command to each of the plurality of buttons by dragging and dropping from one or more applications of the apparatus. (Leavitt, See Abstract).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Astala's touch screen technique with Leavitt's cursor-based drag input technique, because it would allow the users to have different mode of drag system.

Regarding Claim 9 most of the limitations have been met in the rejection of Claim 8. See the rejection of Claim 8 for details. Leavitt discloses the claimed aspect of the contents of the first shortcut key is shifted to become the contents of the second shortcut key by moving a cursor connected to the mouse on the display of the electronic device from a position above the first shortcut key to a position above the second shortcut key, where the mouse button is released, whereby the releasing of the mouse button initiates the shifting of the contents of the first shortcut key to become the contents of the second shortcut key, wherein users can click and drag shortcuts from the Windows desktop or Windows Explorer to a Zenu.TM. button of the present invention. This will cause the button to have the same action as the shortcut. If a file that is not a shortcut is dragged from Windows Explorer to a Zenu.TM. button, the Zenu.TM. UDI will make the button a shortcut pointing to the file that was dragged. For instance, if the user drags a Microsoft.RTM. Word or notepad document onto a Zenu.TM. button, clicking that Zenu.TM. button will now open the document that was dragged onto the button. This overrides the default action of the button defined in the template or theme file as well as user-defined commands. (Leavitt, Page 8, Paragraph 0131).

Regarding Claim 10, most of the limitations have been met in the rejection of Claim 8. See the rejection of Claim 8 for details. Astala discloses the claimed aspect of the object used to select the shortcut key is released on the display of the electronic device somewhere else than above a shortcut key, then the initiated shifting of the contents of the first shortcut key is cancelled, wherein in FIGURE 6a, wherein at step 704 at step 704, a timer is started upon the detection of the object pressing the touch screen 70, and at step 706, the x and y coordinates of the touch input 732 are read. That is, the location of the object at its contact point with the touch screen 70 is determined. (Astala, Page 9, Paragraph 20). As next at step 714, a determination that a drag operation is occurring may be discerned by detecting changes in the x and y coordinates over a predetermined period of time while allowing for discontinuities in the pressure of the object on the touch screen caused by momentary lifting of the object from the face of the touch screen 70 during the drag operation. (Astala, Page 9, Paragraph 40, lines 4-9). Astala does not teach the aspect of the mouse button. However, Leavitt discloses the aspect of mouse button in use of drag drop.

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Astala's object aided drag and drop technique with Leavitt's mouse button use, because this would allow the users to have a choice to use different mode of drag-drop system. Furthermore it is commonly known that raising an object or unclicking the mouse during a drag operation cancels the shifting of the content of any shortcut key. (Microsoft Office Products).

Regarding Claim 11, most of the limitations have been met in the rejection of Claim 9. See the rejection of Claim 9 for details. Leavitt discloses the claimed aspect of the shifting of a shortcut key made on the display of the electronic device further causes the functions attached to a first key belonging to the physical keyboard of the electronic device to be shifted to a second key of the keyboard, wherein Zenu.TM. 200 permits the user to assign commands to the buttons by dragging and dropping from one or more applications associated with (e.g., capable of running on, or otherwise coupled to) the apparatus. (Leavitt, Page 4, Paragraph 0061, lines 12-15).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- 1) Hube, et al., 5,119,079, 06/02/1992, "Touch screen user interface with expanding touch locations for a reprographic machine".
- 2) Moriwaki, US 6,288,732, 09/11/2001, "Information processor".
- 3) Padawer, Andrew D. et al., US 20020115476 , 08//22/2002, "Shortcut system for use in a mobile electronic device and method thereof".
- 4) Moon, et al. , US 6,433,801, 08/13/2002, "Method and apparatus for using a touch screen display on a portable intelligent communications device".

Art Unit: 2109

- 5) Kinawi, et al., US 6,545,669 , 04/08/2003, "Object-drag continuity between discontinuous touch-screens".
- 6) Lindhorst, Gregory S. et al., US 20040066410 A1, "Drag and drop creation and editing of a page incorporating scripts".
- 7) Lien, Shun-Yi, 20050026644 A1, "Cellular phone for specific person".
- 8) Cummins, Charles et al., US 20060070007 A1 and US 20070016872, "Rich drag drop user interface".
- 9) Morishima, US 7,181,250, 02/20/2007, "Mobile phone".
- 10) Shen; Jia-Lin; et al., US 20070124149 A1, "User-defined speech-controlled shortcut module and method thereof".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ECE HUR whose telephone number is (571) 270-1972. The examiner can normally be reached on Mon-Thurs 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Coby can be reached on 571-272-4017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2109

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 27, 2007

Ece Hur  
E.H. /e.h.  
FRANTZ COBY  
SUPERVISORY PATENT EXAMINER